Patent Claims

- 1. A molding composition comprising
- at least two components selected from the group consisting of aromatic poly(ester) carbonates, graft polymers of one or more vinyl monomers on one or more graft bases having a glass transition temperature of < 10°C, a thermoplastic vinyl (co)polymer or poly(alkylene terephthalate), and
- II. 0.5 to 25 parts by weight of a mixture of phosphorus compounds of the general formula (I)

$$R^{1}-(O)_{n}-P-(O-X-O-P-)-(O)_{n}-R^{4}$$

$$(I),$$

$$R^{2}$$

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wherein

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- X denotes a mononuclear or polynuclear aromatic radical with 6 to 30 C atoms,
- R^1 , R^2 , R^3 and R^4 independently of one another denote optionally halogenated $\mathsf{C}_1\text{-}\mathsf{C}_8$ alkyl or unsubstituted or substituted $\mathsf{C}_5\text{-}\mathsf{C}_6$ cycloalkyl, $\mathsf{C}_6\text{-}\mathsf{C}_{20}$ aryl or $\mathsf{C}_7\text{-}\mathsf{C}_{12}$ aralkyl where the substituents are selected from at least one of the group consisting of halogen and $\mathsf{C}_1\text{-}\mathsf{C}_4\text{-}$ alkyl

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- n independently of one another denotes 0 or 1,
- q denotes 0.5 to 30,

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with the proviso that said mixture contains at least 2 phosphorus compounds of the formula (I) that differ one from the other in at least one of their respective X, R^1 , R^2 , R^3 or R^4 and wherein the

2. The composition of Claim 1 containing at least one phosphorus compound of the formula (I-a)

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$$R^{1} - (O)_{n} - P - (O)_{n} - Q - (O)_{n$$

wherein X¹ denotes a mononuclear or polynuclear aromatic radical with 6 to 30 C atoms,

and at least one phosphorus compound of the formula (I-b)

$$R^{1} - (O)_{n} - P - (O)_{n} - Q - (O)_{n$$

wherein X^2 denotes a mononuclear or polynuclear aromatic radical with 6 to 30 C atoms, with the proviso that X^1 , and X^2 differ one from the other or one or more of R^1 , R^2 , R^3 and R^4 in (I-a) is different from its counterpart in (I-b).

3. The composition of Claim 1 wherein X^1 and X^2 independently one of the other is derived from a diphenol conforming to formula (II):

$$(B)_x$$
 $(B)_x$ OH $(II),$

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wherein

 A^1 denotes a member selected from the group consisting of a single bond, C_1 - C_5 alkylene, C_2 - C_5 alkylidene, C_5 - C_6 cycloalkylidene, -O-, -SO-, -CO-, -S-, -SO₂-, C_6 - C_{12} arylene, each optionally condensed with further aromatic rings optionally containing heteroatoms, and a radical of the formula

$$\begin{array}{c}
1 \\
C \\
(Z)_{m} \\
R^{6} R^{7}
\end{array}$$
(III)

or a radical of the formula (IV)

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and where

- B independently of one another denotes C_1 - C_8 alkyl, C_6 - C_{10} aryl, C_7 - C_{12} aralkyl,
- 15 x is in each case independently of one another 0, 1 or 2,
 - p is 1 or 0, and
- R^6 and R^7 for each Z, independently of one another denote hydrogen or C_1 - C_6 alkyl,
 - Z denotes carbon, and
 - m denotes an integer from 4 to 7,

with the proviso that on at least one atom Z

R⁶ and R⁷ are simultaneously alkyl.

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- 4. The composition of Claim 1 wherein X is derived from a member selected from the group consisting of bisphenol A, resorcinol, hydroquinone, dihydroxydiphenyl and dihydroxydiphenyl sulfone.
- 5. The composition of Claim 1 wherein mixture contains at least10 one phosphorus compound according to formula (I-c),

$$R^{1}-(O)_{n}-P = O - (R^{5})_{k} O - (O)_{n}-R^{4}$$
 (I-c),
$$R^{2} = O - (O)_{n} -$$

in which Y denotes an isopropylidene radical, R^5 independently denotes $C_1\text{-}C_4$ alkyl or halogen, and k denotes 0, 1 or 2.

- 6. The composition according to Claim 1 wherein the graft copolymer is based on at least 2 monomers selected from the group consisting of chloroprene, butadiene-1,3, isoprene, styrene, acrylonitrile, ethylene, propylene, vinyl acetate and (meth)acrylic acid esters with 1 to 18 C atoms in the alcohol component.
- 7. The composition of Claim 6 wherein the graft polymer is 20 based on:
 - B.1 5 to 95 parts by weight relative to 100 parts of the graft polymer of a mixture of

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B.1.1 50 to 99 parts by weight relative to 100 parts of B.1 of at least one member selected from the group consisting of styrene, α-methylstyrene, halogennuclear-substituted and methyl-nuclear-substituted styrenes and methyl methacrylate, and

B.1.2 1 to 50 parts by weight relative to 100 parts of B.1 of at least one member selected from the group consisting of selected from the group consisting of acrylonitrile, methacrylonitrile, methylmethacrylate, maleic anhydride, C₁-C₄ alkyl-substituted maleimide and N-phenyl-substituted maleimide, and

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B.2 5 to 95 parts by weight relative to 100 parts of B of polymer based on at least one member selected from the group consisting of diene and alkyl acrylate having a glass transition temperature of below -10°C.

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8. The composition according to Claim 7, wherein B.2 is a member selected from the group consisting of polybutadiene, polyisoprene, butadiene/styrene copolymer, butadiene/acrylonitrile copolymer and acrylate rubber.

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9. The composition according to Claims 1 wherein vinyl monomer is at least one member selected from the group consisting of vinyl aromatic compound, vinyl cyanide, (meth)acrylic acid-(C₁-C₈)-alkyl ester, unsaturated carboxylic acid, and a derivative of an unsaturated carboxylic acid.

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- 10. The composition according to Claim 1 further containing an anti-drip agent.
 - 11. A molding composition comprising:
 - A) 5 to 95 parts by weight relative to 100 parts of the composition of at least one member selected from the group consisting of an aromatic polycarbonate and polyester carbonate,

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- B) 1 to 60 parts by weight relative to 100 parts of the composition of at least one graft polymer of
 - B.1 5 to 95 wt.% relative to the weight of B) of one or more vinyl monomers on
 - B.2 5 to 95 wt.% relative to the weight of B) of one or more graft bases having a glass transition temperature of < 10°C,</p>
- C) 0 to 50 parts by weight relative to 100 parts of the composition of a member selected from the group consisting of a thermoplastic vinyl (co)polymer and thermoplastic poly(alkylene terephthalate)
- D) 0.5 to 25 parts by weight relative to 100 parts of the composition of a phosphorus compound of the general formula (I)

$$R^{1}-(O)_{n}-P-(O-X-O-P-)-(O)_{n}-R^{4}$$

$$(O)_{n}-Q-($$

wherein

- X denotes a mononuclear or polynuclear aromatic radical with 6 to 30 C atoms,
- R^1 , R^2 , R^3 and R^4 independently of one another denote an optionally halogenated C_1 - C_8 alkyl, C_5 - C_6 cycloalkyl, C_6 - C_{20} aryl or C_7 - C_{12} aralkyl in each case optionally substituted by halogen and/or C_1 - C_4 alkyl,
- n independently of one another denotes 0 or 1,
 - q denotes 1 to 30,

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- E) 0.05 to 5 parts by weight of anti-drip agent, proviso that the composition contains at least 2 phosphorus compounds of the formula (I) in which X or one or more radicals R¹, R², R³ and R⁴ in one compound is different from the other and wherein the sum of the parts by weight is 100.
- 12. A method of using the composition of Claim 1 comprising producing a molded article.
 - 13. A molded article comprising the composition of Claim 1.